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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/09/2003

Ed H. Frank

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EXAMINER

WIN, AUNG T

ART UNIT

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2617

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06/15/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/658,734	Applicant(s) FRANK ET AL.	
	Examiner AUNG WIN	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05/29/2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 24-46 is/are pending in the application.
- 4a) Of the above claim(s) 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/29/2009 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1-22 & 24-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Examiner cannot find the amended claimed feature involving one access device with plurality of access points and a switch as recited in amended claims 1-22 & 24-26 for example amended claim 1 recites i.e.,

“Communicating information of said determined optimal load balancing for said more of said plurality of access points to said access device, wherein

Said access device reestablishes communication with **more of said plurality of access points based on said communicated information of said determined optimal load balancing”.**

Examiner also cannot find the claimed communicating method involving receiving, communicating and reestablishing method steps involving multiple access points as recited in amended claims 1-22 & 24-26 for example amended claim 1 recites i.e.,

“Receiving more polling message from an access device by more of a plurality of access points, responsive said more polling message,

Communicating a load on **more of said plurality of access points** to a switch, wherein said switch determines optimal load balancing for **more of said plurality of access points** based on said communicated load; and

Communicating information of said determined optimal load balancing for said **more of said plurality of access points** to said access device, wherein said access device re-establishes communication with **more of said plurality of access points** based on said communicated information of said determined optimal load balancing.

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2. Claims 17-25 and 27-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding Claim 6, cited claim limitations "operable to" renders the claim indefinite because "operable to" is typical of claim limitation, which may not distinguish over the prior art. It has been held that the recitation that an element such as "operable to" "adapted to" performing a function is not a positive limitation but only requires the ability to so perform.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-22 & 24-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crosbie (US20020085719A1) in view of Kostic et al. (US20030134642A1).

3.1 Regarding claim 1, Crosbie discloses a method for communication, the method comprising:

Receiving one or more polling message from an access device by one or more of a plurality of access points in a hybrid wired/wireless local area network [receiving service request message from mobile device by access point in a hybrid wired/wireless

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local area network [hybrid wired/wireless network: Figure 1] [service request message: 0044];

communicating a load on said one or more of said plurality of access points to a switch, wherein said switch determines optimal loading balancing for said one or more of said plurality of access points based on said communicated load [Roaming server i.e., switch: 0035] [In responsive to service request message, Roaming server determines loads on access points and centrally controls the network based on determined loads on access points for load balancing among access points and improving the radio link quality of service: 007, 0042-0047 & 0055]; and

Communicating information of said determined optimal load balancing for said one or more of plurality of access points to said access device, wherein said access device re-establishes communication with one or more of said plurality of access points based on said communicated information of said determined optimal load balancing [communicating the mobile device to re-establish with better access point based on said communicated information of said determined optimal load balancing i.e., better access point information: 007, 0042-0047 & 0055].

One of ordinary skilled in the art would realized that access points and roaming server i.e., claimed switch must be configured to communicate with each other for load information of respective access points to achieve network optimal load balancing in the Crosbie's optimal load balancing method but does not explicitly disclose that communication is responsive to said polling message.

Kostic et al. also discloses the centrally controlled optimal load balancing method in a hybrid wired/wireless local area network [Figures 5, 8 & 9] in which access points communicates load information to the switch in response to mobile device service request message [0042].

Therefore, it would have been obvious to one of ordinary skilled in the art at the time of invention of made to modify the Crosbie's optimal load balancing method as taught by Kostic et al. to modify according to claimed method. One of ordinary skilled in the art at the time of invention of made would have been motivated to do this for efficient communication.

3.2 Claim 9 is rejected for the same reason as stated above in Claim 1 rejection because claimed executing steps are substantially close to corresponding method of claim 1. The modified method executed by wireless station and access points and switch must have stored computer programs and programming codes for executing as claimed in claim 9 because wireless stations and access points and switch are programmable computing devices.

3.3 Claim 27 is substantively similar to claim 1 rejected for the same reason as stated above in claim 1 rejection. It would have been obvious to one of ordinary skilled in the art that the modified method executed by wireless station and access points and switch must be configured to transmit, receive according to the claim 27 method.

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3.4 Claims 17 & 37 are system claims rejected for the same reason as stated above in Claim 1 rejection because claim 17 & 37 systems execute the method which are substantively similar to corresponding method of claims 17 & 37. The system executed according to the modified method must comprise transmitters, receivers, controllers and processors as claimed because wireless stations and access points and switch are programmable computing devices.

3.5 As regards to Claims 2, 10 & 11, it would have been obvious to one of ordinary skilled in the art that modified system and method discloses the according to claims 1, 9 & 17, comprising access points, which must be in operating range of transmitting wireless station as claimed in order to receive service request message.

3.6 As regards to Claims 3, 4, 11, 12, 19, 20, 28, 29, 30, 38, 39, 40, it would have been obvious to one of ordinary skilled in the art that modified method and system discloses the method according to claims 2, 10, 18, 27 & 37 comprising selecting an access point from said plurality of access points having a least load and based on a received signal strength of said plurality of access points [mobile selects the access points with best quality of service: (Crosbie: 0044-0047) & (Kostic et al: 0027-0029, , 0036-0038 & claim 11)]. Official Notice is also taken the concept and advantages for selecting access point for optimal load balancing and based on RSSI is well known to one of ordinary skilled in the art at the time of invention of made and

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3.7 As regards to Claim 26, it would have been obvious to one of ordinary skilled in the art the modified access point is one or more of: a bandwidth management controller, a quality of service controller, a load balancing controller, a session controller and a network management controller because optimal load balancing is controlled and processed via modified access point [see claim 1 & 17 rejections as stated above].

3.8 As regards to claim 31 and 41, it would have been obvious to one of ordinary skilled in the art that mobile device in modified method and system would be configured to broadcast one or more polling message as claimed because modified method and system is based on 802.11 standard which supports operation based on active scanning or passive scanning. It should be noted that claimed polling method would have been obvious matter of design choice and does not constitute the patentability distinctions from prior arts and existing wireless LAN or other short range communication protocol standards.

3.9 Regarding Claims 5-8, 13-16, 21, 22, 24-25, 32-36, 42-46, it would have been obvious to one of ordinary skilled in the art that the modified method and system would teach messaging protocol i.e., communicating according to wired/wireless LAN protocol and messaging sequences according to claims for communicating between access points and switch as claimed because modified method and system is centralized load balancing control method and system. It would have been obvious to one of ordinary skilled in the art that load information communicating between each of access points

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and switch according to modified method is aggregate load of each access points in order to determine and distribute loads across the network to achieve optimal load balancing.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AUNG T. WIN whose telephone number is (571)272-7549. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Eisen can be reached on (571) 272-7687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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